

DIAGNOSES OF CYRTANDRA SPECIES (GESNERIACEAE)

SECTION SCHIZOCALYCES

HAWAIIAN PLANT STUDIES 157

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As previously known the section Schizocalyces of Cyrtandra contained 5 species on Kauai, 33 species and 3 varieties on Oahu, 2 species and 1 variety on Molokai, 3 species and 5 varieties on Hawaii. To these are here added 41 species and 1 variety. The types are in the Bishop Museum, Honolulu, unless otherwise indicated.

C. ahome sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 3-9 cm longis pilosulis, laminis 9-18 \times 4.5-7 cm ellipticis acuminatis basi cuneata supra hirsutulis infra nervis pilosulis, cymis 7.5-8 cm longis 3-floriferis pilosulis, pedicellis 20-30 mm longis, calycibus 16-17 mm longis pilosulis lobis 13-14 mm longis lanceolatis, corollis 20 mm longis pilosulis. Typus: Hawaii I., Transect 69, F. R. Warshauer 2,015.

C. albula sp nov. Novellae puberulae sunt, foliis oppositis inaequalibus, petiolis 7-15 mm longis pilosis, laminis 3.2-10.5 \times 1.1-3.5 cm ellipticis subacuminatis basi cuneata supra puberulis infra puberulis, cymis 3-5.5 cm longis 1-floriferis puberulis, pedicellis 15-20 mm longis, calycibus 20-22 mm longis 8/9 partitis lobis 15-20 mm longis lanceolatis obtusis puberulis, corollis 20 mm longis $\frac{1}{2}$ partitis loba infera 8 \times 7 mm elliptica. Typus: Maui I, Honokohau Stream, H. St. John 21,358.

C. anxie sp. nov. Novellae puberulae sunt, foliis oppositis inaequalibus, petiolis 1-2.5 cm longis puberulis, laminis 4.5-10.5 \times 1.6-3.9 cm fusiformibus acuminatis basi cuneata supra hirsutulis infra nervis puberulis, cymis 5-6 cm longis 2-floriferis puberulis, pedicellis 7-23 mm longis, calycibus 7-8 mm longis puberulis lobis ligulato-lanceolatis eis superis 5.5-6 mm longis, corollis 10 mm longis puberulis. Typus: Hawaii I., Puu Makaala, K. Nagata 1,884.

C. austrohiloensis sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 2-5 cm longis pilosis, laminis 5.7-10.1 \times 2.8-7 cm ellipticis basi cuneata supra hirsutis infra pilosulis nervis pilosis, cymis 3-4 cm longis 3-floriferis pilosis, pedicellis 10-17 mm longis, calycibus 20 mm longis pilosis 4/5 partitis lobis 16 mm longis lanceolatis, corollis 20 mm longis pilosulis loba infera 6 \times 5 mm suborbiculari. Typus: Hawaii I.,

Waiakea, Saddle Road, H. St. John et al. 22,396.

C. badia sp. nov. Novellae hirsutae sunt, foliis oppositis, petiolis 2.8-7 cm longis hirsutis, laminis 8-16 \times 3.5-6.2 cm ellipticis acuminatis basi cuneata supra hirsutulis infra hirsutulis, cymis 4.5 cm longis 1-floriferis hirsutis, pedicellis 14 mm longis, calycibus 16 mm longis lobis 13-14 mm longis ligulate oblanceolatis, corollis 15 mm longis pilosis. Typus: Hawaii I., Hawaii Natl. Park, G. O. Fagerlund & Mitchel 580.

C. biserrata sp. nov. Novellae hirsutae sunt, foliis oppositis, petiolis 15-43 mm longis hirsutis, laminis 7-15 \times 3-7.5 cm fusiformi-ellipticis acutis basi cuneata supra hirsutis infra pilosulis sed nervis pilosis, cymis 5-6 cm longis 1-2-floriferis pilosulis, pedicellis 18-20 mm longis, calycibus 18-21 mm longis lobis 15-18 mm longis lanceolatis, corollis 24 mm longis pilosulis loba infera 9 \times 12 mm reniformi. Typus: Molokai I., F. R. Warshauer 2,442.

C. brunnea sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 18-30 mm longis pilosulis, laminis 6.8-8.3 \times 2.7-5.9 cm oblanceolatis acuminatis basi cuneata supra subglabra infra pilosulis, cymis 4-6 cm longis 1-4-floriferis pilosulis, pedicellis 15-27 mm longis, calycibus 13-15 mm longis pilosulis lobis inferis 11 mm longis lanceolatis, corollis 18 mm longis puberulis. Typus: Hawaii I., Transect 29, F. R. Warshauer 1,660.

C. callaina sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2-3.5 cm longis pilosulis, laminis 4.5-11 \times 1.6-4.5 cm ellipticis subacuminatis basi cuneata decurrenti supra hirsutulis infra pilosulis, cymis 3-4 cm longis 3-floriferis pilosulis, calycibus 12 mm longis pilosulis lobis 10-11 mm longis spatulatis, corollis 18 mm longis. Typus: Maui I., Kaea, C. N. Forbes 2,557 M.

C. carina sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 20-42 mm longis pilosis, laminis 7.5-16.5 \times 4.5-7 cm ellipticis acuminatis basi cuneata supra hirtellis infra nervis pilosulis, cymis 5-7 cm longis 3-9-floriferis pilosis, pedicellis 18-30 mm longis, calycibus 12-14 mm longis pilosis lobis 7-8 mm longis lanceolatis, corollis 23 mm longis pilosulis loba infera 7 \times 8 mm suborbiculari. Typus: Hawaii I., Glenwood, E. Funk 201.

C. catenulata sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 2.5-4 cm longis pilosis, laminis 11-11.5 \times 3.2-3.6 cm subcoriaceis fusiformibus acuminatis basi cuneata infra pilosulis nervis pilosis, cymis 4-4.5 cm longis 1-3-floriferis pilosis, pedicellis 18-25 mm longis, calycibus 20-25 mm longis pilosis

lobis 15-18 mm longis lanceolatis, corollis 21 mm longis pilosulis. Typus: Hawaii I., Kulani, F. R. Warshauer 1,359.

C. chartacea sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 1-4 cm longis pilosis, laminis 6-12.5 \times 3-5.2 cm oblanceolatis acuminatis basi cuneata decurrenti supra hirsutulis infra pilosulis, cymis 3-4 cm longis 1-floriferis pilosis, pedicellis 7-14 mm longis, calycibus 15 mm longis pilosulis lobis 7 mm longis lanceolatis, corollis 21 mm longis pilosulis, loba infera 8 \times 7 mm elliptica. Typus: Kauai I., Wainiha, C. Christensen 264.

C. commensurata sp. nov. Novellae puberulae sunt, foliis oppositis, petiolis 8-18 mm longis puberulis, laminis 4-10.3 \times 1.6-3.8 cm subcoriaceis ellipticis acuminatis basi cuneata decurrenti supra hirsutulis infra puberulis, cymis 4-5 cm longis 3-floriferis puberulis, pedicellis 16-25 mm longis, calycibus 7 mm longis puberulis 6/7 partitis lobis 5-6 mm longis obtusis. Typus: Hawaii I., Laupahoehoe, W. Wong.

C. comosa sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 2-6 cm longis pilosulis, laminis 12.5-19 \times 4.4-6.9 cm fusiformibus acuminatis basi cuneata hirsutulis, cymis 5 cm longis 3-floriferis hirsutulis, pedicellis 7-9 mm longis, calycibus 10 mm longis hirsutulis lobis 6 mm longis lineari-lanceolatis, corollis 14 mm longis hirsutulis. Typus: Hawaii I., Clarke 554.

C. crassichartacea sp. nov. Novellae villosae sunt, foliis oppositis, petiolis 5-8 cm longis villosis, laminis 8-10 \times 4.5-7.5 cm ellipticis acuminatis basi rotundata supra hirsutis infra pilosis sed nervis villosis, umbellis 9-9.5 cm longis 5-7-floriferis villosis, pedicellis 14-25 mm longis, calycibus 13-14 mm longis villosis 7/8 lobatis lobis 10-12 mm longis lanceolatis, corollis 12-14 mm longis pilosis. Typus: Hawaii I., Glenwood, O. Degener.

C. crebra sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 9-20 mm longis pilosulis, laminis 3-6 \times 1.5-3.2 cm ellipticis acuminatis basi cuneata supra hirsutis infra pilosis, cymis 2-2.5 cm longis 1-floriferis hirsutis, pedicellis 5-6 mm longis, calycibus 7 mm longis hirsutis lobis 3.5-4 mm longis lineari-lanceolatis, corollis 13 mm longis hirsutis. Hawaii I., 22 Mile Road, Olaa H. St. John et al. 18,489.

C. crispa sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 1.5-2.5 cm longis pilosulis, laminis 10-17 \times 5.5-7.3 cm ellipticis acuminatis basi cuneata decurrenti supra hirsutulis infra pilosulis nervis pilosis, cymis 5-6 cm longis 7-floriferis pilosulis, pedicellis 6-20 mm longis, calycibus 13 mm longis pilosulis 5/6 partitis lobis inferis 7-8 mm longis obtusis, corollis 20 mm longis puberulis. Typus: Hawaii I., Kohala Mts., Puu Laalaau, W. J. Hoe 1905.O. (HAW).

C. duploserrata sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 2.5-6.5 cm longis pilosis, laminis 13-14 X 7-7.3 cm ellipticis acuminatis basi cuneata supra pilosis infra pilosis, cymis 5-6.5 cm longis 1-3-floriferis pilosis, pedicellis 14-30 mm longis, calycibus 17 mm longis pilosis lobis 15-17 mm longis oblanceolatis corollis 20 mm longis pilosulis loba infera 7 mm diametro suborbiculari. Typus: Hawaii I., Transect 28, F. R. Warshauer 1,641.

C. dytike sp. nov. Novellae puberulae sunt, foliis oppositis inaequalibus, petiolis 1.8-2.5 cm longis puberulis, laminis 5-15 X 1.8-5.3 cm ellipticis acuminatis basi cuneata supra hirsutulis infra puberulis, cymis 5-7 cm longis 5-7-floriferis puberulis, pedicellis 7-16 mm longis, calycibus 14 mm longis puberulis lobis 12.5 mm longis lanceolatis, corollis 16 mm longis puberulis. Typus: Maui I., Makamaole Valley, K. Kepler 50.

C. echyros sp. nov. Ramulae hirsutae sunt, foliis oppositis inaequalibus, petiolis 5-7 cm longis hirsutis, laminis 18-21 X 10-12 cm ellipticis acuminatis basi cuneata decurrenti infra pilosulis nervis pilosis, cymis 7-floriferis pilosis, pedicellis 5-27 mm longis, calycibus 22-32 mm longis pilosulis 6/7 partitis lobis inferis 13 mm longis lanceolatis, corollis 20 mm longis. Typus: Hawaii I., Hawaii Volcanoes Natl. Park, F. R. Warshauer 32.

C. elliptica sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 9.5-11 cm longis pilosis, laminis 14.5-17.5 X 9.4-10 cm ellipticis subacuminatis basi cuneata supra pilosis infra pilosulis, sed nervis pilosis, cymis 9-11 cm longis 3-5-floriferis pilosis, pedicellis 14-20 mm longis, calycibus 18-20 mm longis pilosis lobis 15-17 mm longis lanceolatis, corollis 22 mm longis pilosis. Typus: Hawaii I., Mauna Loa, Transect 29, F. R. Warshauer 1,650.

C. epiphytica sp. nov. Novellae hirsutae sunt, foliis oppositis, petiolis 2-5.5 cm longis hirsutis, laminis 6-11 X 3.3-6 cm ellipticis acuminatis basi cuneata supra hirsutulis infra pilosulis nervis hirsutulis, cymis 3-4.5 cm longis 1-2-floriferis hirsutis, pedicellis 10-20 mm longis, calycibus 17 mm longis hirsutis lobis lanceolatis eis superis 11 mm longis, corollis 21 mm longis pilosulis. Typus: Hawaii I., Transect 26, F. R. Warshauer 1,613.

C. ferripilosa sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 1.5-4 cm longis pilosulis, laminis 6.8-19.7 X 1.7-7.7 cm subcoriaceis elliptico-oblanceolatis subacuminatis basi cuneata hirsutulis, cymis 3-9 cm longis 1-6-floriferis pilosulis, pedicellis 13-25 mm longis,

calycibus 21-22 mm longis pilosulis, lobis 15-16 mm longis lanceolatis, corollis 25 mm longis pilosis. Typus: Maui I., Transect 18, F. R. Warshauer 3,100.

C. fissa sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 2-4 mm longis pilosis, laminis 10-13.5 \times 5.5-7 cm subcoriaceis oblanceolatis ad ellipticis acuminatis basi cuneata decurrenti supra hirsutis infra pilosulis, cymis 4-4.5 cm longis 1-3-floriferis pilosis, pedicellis 10-14 mm longis, calycibus 16-18 mm longis pilosis 5/6 lobatis lobis 12-15 mm longis ellipticis. Typus: Kauai I., Kalalau, H. St. John 26,043.

C. fruticosa sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 3.5-10 cm longis pilosulis, laminis 6-16.5 \times 2.5-8 cm. ellipticis acuminatis basi cuneata supra hirsutulis infra hirsutulis, cymis 3-4 cm longis 3-floriferis pilosulis, pedicellis 12-14 mm longis, calycibus 12-13 mm longis pilosulis lobis lineari-lanceolatis eis inferis 9 mm longis, corollis 18 mm longis pilosulis loba infera 6 \times 7 mm suborbiculari. Typus: Hawaii I., Malama-Ki Forest Res.

G. Clarke 561.

C. Heinrichii sp. nov.

C. oenobarba H. Mann, var. *obovata* Wawra, Flora 55: 563, 1872, non *C. obovata* Gillett (1973).

C. confertiflora (Wawra) C. B. Clarke, var. *obovata* (Wawra) C. B. Clarke in DC., Monogr. Phanerog. 5: 236, 1883.

C. iaoensis sp. nov. Ramulae pilosulae sunt, foliis oppositis inaequalibus, petiolis 8-32 mm longis pilosulis, laminis 3.5-8.3 \times 1.5-3.2 cm ellipticis subacuminatis basi cuneata supra hirsutulis infra puberulis, cymis 8-9 cm longis 3-floriferis puberulis, pedicellis 13-25 mm longis, calycibus 17-18 mm longis lobis 16-17 mm longis ellipticis subacuminatis, corollis 23 mm longis pilosulis loba infera 9 \times 9 mm orbiculari. Typus: Maui I., Iao, R. Hobdy 912.

C. infraglabra sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2.5-5.5 cm longis pilosulis, laminis 7-17 \times 3-7 cm ellipticis acuminatis basi cuneata supra et infra pilosulis, cymis 2.5-4.5 cm longis 3-floriferis pilosulis, pedicellis 11-15 mm longis, calycibus 12 mm longis pilosulis 3/4 lobatis lobis 9-10 mm longis deltoideis, corollis 16-18 mm longis pilosulis loba infera 5 mm diametro suborbiculari. Typus: Hawaii I., Waiakea, H. St. John et al. 22,358.

C. keanaeensis sp. nov. Novellae puberulae sunt, foliis oppositis inaequalibus, petiolis 7-23 mm longis puberulis, laminis 3-9.5 \times 2-3.8 cm coriaceis ellipticis subacuminatis basi cuneata supra hirsutulis infra pilosulis, cymis 4 cm longis 3-5-floriferis puberulis, pedicellis

7-13 mm longis, calycibus 10-12 mm longis pilosulis labia supra 9-10 mm longa lobis ellipticis, corollis pilosulis. Typus: Maui I., P. K. Higashino 9,114.

C. kukuiensis sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 3-4 cm longis pilosis, laminis 14.5-15.5 \times 4.6-6 cm ellipticis acuminatis basi cuneata decurrenti pilosulis, cymis 4-5 cm longis 1-3-floriferis pilosis, pedicellis 10 mm longis, calycibus 18-20 mm longis pilosis 7/8 partitis lobis 16-18 mm longis lanceolatis obtusis, corollis 28 mm longis pilosis. Typus: Maui I., Mauna Kukui, J. F. Rock 8,172.

C. kamooolaensis sp. nov. Ramulae pilosulae sunt, foliis oppositis, petiolis 1-4.5 cm longis pilosulis, laminis 9-15 \times 4-8 cm ellipticis acuminatis basi cuneata supra et infra puberulis, cymis 4-5 cm longis 1-floriferis pilosulis, pedicellis 8-15 mm longis, calycibus 23-28 mm longis pilosulis lobis 21-25 mm longis oblanceolatis, corollis 25-27 mm longis pilosulis. Typus: Kauai I., Kamoola Stream, C. Christensen 70.

C. lysiosepapa (A. Gray) C. B. Clarke, var. *Ewartii* var. nov. Novellae puberulae sunt, foliis oppositis, petiolis 5-17 mm longis, laminis 2.4-8.5 \times 1.2-3.8 cm ellipticis subacuminatis supra pilosulis infra puberulis nervis pilosulis, cymis 4-6.5 cm longis 1-floriferis puberulis, pedicellis 20-25 mm longis, calycibus 15-16 mm longis 7/8 partitis puberulis lobis 13-14 mm longis lanceolatis. Typus: Maui I., Haelaau, G. R. Ewart III & G. C. Munro 39.

C. macilenta sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 2-4.5 cm longis pilosulis, laminis 5.5-18 \times 2.2-8 cm lanceolatis acuminatis basi cuneata decurrenti pilosulis, cymis 2.7-4.5 cm longis 1-floriferis pilosulis, pedicellis 7-22 mm longis, calycibus 15-16 mm longis pilosulis lobis 14-22 mm longis, corollis 24 mm longis pilosulis loba infera 9 \times 7 mm ovata. Typus: Kauai I., Hanakoa, H. St. John et al. 23,199.

C. malina sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2-5 cm longis pilosulis, laminis 10-11 \times 4-6 cm lanceolatis acuminatis basi cuneata, cymis 5-7 cm longis 3-7-floriferis pilosulis, pedicellis 9-20 mm longis, calycibus 11-12 mm longis pilosulis 7/8 lobatis lobis 9-10 mm longis spathulatis, corollis 15-16 mm longis. Typus: Maui I., Kaupo Gap, W. Gagne & S. Montgomery 604.

C. molokaiensis sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 2-6 cm longis pilosulis, laminis 6-17.5 \times 3.5-7.2 cm ellipticis

acuminatis basi cuneata decurrenti supra pilosulis infra puberulis nervis pilosulis, cymis 4-5 cm longis pilosulis, pedicellis 0.5-2 mm longis, calycibus 18-22 mm longis puberulis lobis 16-20 mm longis lanceolatis, corollis 19 mm longis puberulis. Typus: Molokai I., Lelemako Gulch, S. Perlman 503.

C. nanawaleensis sp. nov. Novellae hirsutulae sunt, foliis oppositis, petiolis 2-5 mm longis hirsutulis, laminis 4-15 X 2-5.2 cm ellipticis acutis basi cuneata hirsutulis, cymis 2 cm longis 3-floriferis hirsutulis, pedicellis 5-8 mm longis, calycibus 7 mm longis hirsutulis lobis 4-5 mm longis lanceolatis subobtusis, corollis 13 mm longis hirsutulis. Typus: Hawaii I., Nanawale Forest Res., L. K. Cuddihy 790053.

C. nuda sp. nov. Frutex ramosus est, petiolis 18 mm longis pilosulis, laminis 19.5-20 X 6.4-7.8 cm ellipticis acuminatis quarto basali deminuenti et cuneata supra midnervo hirsutulo infra nervis pilosulis, cymis 4 cm longis 3-floriferis pilosulis, pedicellis 4-10 mm longis, calycibus 23-25 mm longis pilosulis lobis 16 mm longis lanceolatis, corollis pilosulis. Typus: Maui I., Transect 4, F. R. Warshauer 2,836.

C. obliqua sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 3-7 cm longis pilosis, laminis 14-17.5 X 6.5-8.5 cm ellipticis acuminatis basi cuneata supra hirsutis infra pilosulis nervis hirsutulis, cymis 7-9 cm longis 3-floriferis pilosis, pedicellis 13-30 mm longis, calycibus 16-18 mm longis pilosis lobis 12-16 mm longis lanceolatis, corollis 15 mm longis pilosis. Typus: Maui I., Puu Kukui, G. R. Ewart III 136.

C. occidentis sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 2-3 cm longis pilosulis, laminis 3.5-7.5 X 1.2-3 cm ellipticis acutis basi cuneata supra pilosulis infra pilosulis, cymis 6-7 cm longis 3-floriferis pilosulis, pedicellis 15-20 mm longis, calycibus 11-13.5 mm longis pilosulis 11/12 lobatis lobis 8.5-13 mm longis ellipticis acutis, corollis 15 mm longis pilosulis. Typus: Maui I., Waihee, H. Wawra 1,820a (W).

C. oblonga sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 1-2.2 cm longis pilosulis, laminis 7-16 X 3.8-7.6 cm ellipticis acuminatis basi cuneata supra hirsutulis infra pilosis, cymis 4-5 cm longis 3-5-floriferis pilosulis, pedicellis 12-20 mm longis, calycibus 11-13 mm longis pilosulis lobis 9-11 mm longis ellipticis subacutis, corollis 17 mm longis pilosis. Typus: Maui I., Makawao, W. Hillebrand & J. M. Lydgate (specimine ad dextram).

C. olowaluensis sp. nov. Novellae puberulae sunt, foliis oppositis inaequalibus, petiolis 7-25 mm

longis puberulis, laminis 8-13 X 3-3.8 cm ellipticis acuminatis basi cuneata decurrenti supra hirsutulis infra puberulis, cymis 5.5-6 cm longis 3-floriferis puberulis, pedicellis 15-18 mm longis, calycibus 12-13 mm longis puberulis lobis 11-12 mm longis spatulatis, corollis 15 mm longis pilosulis. Typus: Maui I., Olowalu, C. N. Forbes 2,432.M.

C. pololuensis sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2.5-4 cm longis pilosulis, laminis 11-16 X 3.5-9 cm ellipticis acuminatis basi cuneata supra hirsutulis infra pilosis, cymis 2-3 cm longis 1-floriferis pilosulis, pedicellis 7-10 mm longis, calycibus 10-11 mm longis pilosulis 5/6 partitis lobis 8-9 mm longis lanceolatis, corollis 10 mm longis pilosulis. Typus: Hawaii I., Pololu, O. Degener & A. Greenwell 21,895.

C. prasina sp. nov. Novellae hirsutulae sunt, foliis oppositis, petiolis 1.5-6.5 cm longis hirsutis, laminis 4-14 X 1.5-5.3 cm ellipticis acuminatis basi cuneata supra hirsutis infra hirsutulis, cymis 4-7 cm longis 3-5-floriferis hirsutulis, pedicellis 10-25 mm longis, calycibus 12-13 mm longis hirsutis lobis 7-8 mm longis lanceolatis. Typus: Hawaii I., Giffard 13,094.

C. pustulata sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 15-17 mm longis pilosulis, laminis 8-11.5 X 3.5-6 cm ellipticis acutis basi cuneata supra hirsutis infra pilosis, cymis 4 cm longis 1-floriferis pilosulis, pedicellis 12-18 mm longis, calycibus 12-13 mm longis pilosulis lobis 8-9 mm longis lanceolatis corollis 22 mm longis pilosulis. Typus: Molokai I. P. K. Higashino 9,400.

C. ralla sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 6-7.5 cm longis pilosulis, laminis 15-18 X 6-7.8 cm coriaceis ellipticis subacuminatis basi cuneata supra pilosulis infra pilosulis, calycibus 18-19 mm longis pilosulis lobis inferis 13-14 mm longis lanceolatis, corollis 28 mm longis pilosulis loba infera 7.5 mm diametro suborbiculari. Typus: Hawaii I., Transect 30, F. R. Warshauer 1,236.

C. recurrens sp. nov. novellae villosae sunt, foliis oppositis, petiolis 4-8 cm longis villosis, laminis 11.5-16 X 6.5-8.4 cm ellipticis acuminatis basi cuneata decurrenti supra hirsutulis infra pilosulis nervis villosis, cymis 5-6 cm longis 3-5-floriferis villosis, pedicellis 10-15 mm longis, calycibus 16-19 mm longis villosis lobis 9-12 mm longis lanceolatis, corollis 15 mm longis villosis. Typus: Hawaii I., Kalanilehua, Olaa, W. M. Giffard.

C. rudiculata sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 1.5-2.5 cm longis pilosis, laminis 15-18 X 4.2-5.7 cm oblanceolatis sed quarto basali cuneato midnervo infra piloso, cymis 3.5 cm longis 3-floriferis pilosis, pedicellis 8 mm longis, calycibus 16 mm longis pilosis lobis 13-14 mm longis lanceolatis, corollis 13 mm longis pilosulis. Typus: Hawaii I., Kohala Forest Res., O. Degener 30,369.

C. subcoriacea sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 4.5-5 cm longis pilosis, laminis 8-13.5 X 5.5-8 cm subcoriaceis ellipticis acuminatis basi cuneata decurrenti supra hirsutis infra pilosis nervis villosis, cymis 6-9 cm longis 3-floriferis pilosis, pedicellis 12-25 mm longis, calycibus 13-15 mm longis pilosis lobis 8-9 mm longis ovatis acutis, corollis 22 mm longis pilosis. Typus: Maui I., Kapilau Ridge, L. E. Bishop et al. 047117 (HAW).

C. trite sp. nov. Novellae puberulae sunt, foliis oppositis, petiolis 2.5-5 cm longis puberulis, laminis 12-16 X 4.5-7 cm ellipticis acuminatis basi cuneata supra hirsutulis infra glaucis hirsutulis, cymis 8-10 cm longis 3-5-floriferis puberulis, pedicellis 20-25 mm longis, calycibus 10-11 mm longis puberulis lobis superis 7-8 mm longis lanceolatis, corollis 14-14.5 mm longis puberulis loba infera 3.5 X 4 mm semiorbiculari. Typus: Hawaii I. Laupahoehoe, L. W. Cuddihy 742.

C. umbelliflora sp. nov. Novellae villosae sunt, foliis oppositis, petiolis 3-4 cm longis villosis, laminis 10.5-13 X 5.5-6.5 cm ellipticis acuminatis basi cuneata supra hirsutis infra villosis, umbellis 7-floriferis, pedunculo 5.8 cm longo, pedicellis 22 mm longis, calycibus 13-15 mm longis hirsutulis lobis inferis 11-13 mm longis ligulatis. Typus: Maui I., Makawao, W. Hillebrand & J. M. Lydgate, (specimene ad sinistram).

C. vesperalis sp. nov.

C. triflora Gaud., β forma *robusta* Wawra, Flora 55: 563, 1872 (p. 17 in reprint), non *C. robusta* Kraenzl. (1927).

Expanded diagnosis: Branchlets pilosulous; leaves opposite; petioles 3-5 cm long, pilosulous; blades 8-17 X 3.2-6.5 cm, elliptic, acuminate, cuneate at base, above catenulate hirsutulous, below puberulous, but the veins hirsutulous; cymes 8-15 cm long, 3-11-flowered, pilosulous; pedicels 25-40 mm long; calyx 11-13 mm long, pilosulous, the lobes 5-11 mm long, elliptic; Holotype: Maui I., Waihee, H. Wawra 1,820b (W).

ADDENDUM (sect. Chaetocalyces).

C. anatolike sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 1-3 cm longis pilosulis, laminis 4-8.5 X 2-3.5 cm ellipticis acuminatis supra hirsutulis infra pilosulis, cymis 2.5-4 cm longis 1-floriferis pilosulis, pedicellis 12-20 mm longi, calycibus 17 mm longis pilosulis lobis 11-14 mm longis ligulatis subacutis, corollis 17-18 mm longis pilosulis. Typus: Maui I., USFWS Base Camp Ridge, F. R. Warshauer 2,536.